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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,866	03/04/2002	Ling-Zhong Liu	12496-US	4238

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EXAMINER

LEE, ANDREW CHUNG CHEUNG

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/086,866	Applicant(s) LIU ET AL.	
	Examiner Andrew C. Lee	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,8,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,8,13,14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 8, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cain et al. (US 6810427 B1) in view of Simon's et al. (US 7039046 B1).

Regarding claim 1, Cain et al. disclose the limitation of a method of managing switch connections at a switching node in a communications system (recited "managing a router table including inter-router protocol information indexes the routing table to the inter-router protocol information" as managing switch connections at a switching node; column 2, lines 25 – 27), the method comprising: providing connection requests from a higher level application to a connection manager in said switching node (recited "accepts both routing information requests and updates" as providing connection request from a higher level application, and "routing table manager" as connection manager; Fig. 2, Fig. 3; column 6, lines 37 – 42); processing said requests in said connection manager and generating a connection table (recited "the routing table manager application that creates and maintains a control plane routing table, initializes the routing table, accepts routing information" as processing said requests in said connection manager and generating a connection table; column 6, lines 15 – 32),

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however, Cain et al. do not teach explicitly therefrom based on switch hardware related information stored within switch hardware; based on said connection table, routing said commands from said connection manager to switch card elements in said switching nodes to carry out said requests; and if the switch hardware changes, dynamically changing the connection table. Simons et al. disclose the limitation of therefrom based on switch hardware related information stored within switch hardware (recited "the service endpoint managers running on each board establish active queries with the configuration database for service endpoint table" as on switch hardware related information stored within switch hardware; column 17, lines 10 – 20, lines 36 – 42) based on said connection table (recited as service endpoint table), routing said commands from said connection manager to switch card elements in said switching nodes to carry out said requests; and if the switch hardware changes, dynamically changing the connection table (recited "sends the service endpoint manager associated with the port PID in the service endpoint table a change notification including on the change that was made" as the switch hardware changes, dynamically changing the connection table; column 17, lines 36 – 58). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cain et al. to include therefrom based on switch hardware related information stored within switch hardware; based on said connection table, routing said commands from said connection manager to switch card elements in said switching nodes to carry out said requests; and if the switch hardware changes, dynamically changing the connection table such as that taught by Simons et al. in order to provide network device including a distributed switch

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fabric subsystem interface coupled with the distributed fabric subsystem and capable of transferring network data with the distributed switch fabric subsystem (as suggested by Simons et al., see column2, lines 48 – 52).

Regarding claim 8, Cain et al. disclose the limitation of a method according to claimed wherein said switch card elements support configuration table (column 19, lines 24 – 37). However, Cain et al. do not disclose explicitly wherein said switch card elements support multiple configuration tables. Simons et al. disclose the limitation of wherein said switch card elements support multiple configuration tables (recited “records associated with the board’s LID from the corresponding application group tables” as switch card elements support multiple configuration tables; column 18, lines 15 – 26, 34 – 48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cain et al. to include wherein said switch card elements support multiple configuration tables such as that taught by Simons et al. in order to provide network device including a distributed switch fabric subsystem interface coupled with the distributed fabric subsystem and capable of transferring network data with the distributed switch fabric subsystem (as suggested by Simons et al., see column2, lines 48 – 52).

Regarding claim 13, Cain et al. disclose the limitation of a method of managing switch connections at a switching node in a communications system (recited “managing a router table including inter-router protocol information indexes the routing table to the

inter-router protocol information” as managing switch connections at a switching node; column 2, lines 25 – 27), the method comprising: providing connection requests from a higher level application to a connection manager in said switching node (recited “accepts both routing information requests and updates” as providing connection request from a higher level application, and “routing table manager” as connection manager; Fig. 2, Fig. 3; column 6, lines 37 – 42); processing said requests in said connection manager and generating a connection table therefrom (recited “the routing table manager application that creates and maintains a control plane routing table, initializes the routing table, accepts routing information” as processing said requests in said connection manager and generating a connection table; column 6, lines 15 – 32); and based on said connection table, routing commands from said connection manager to switch card elements in said switching nodes to carry out said requests (column 6, lines 23 – 36); Cain et al. teach said switch card elements support configuration table (column 19, lines 24 – 37). However, Cain et al. do not disclose explicitly said switch card elements supporting multiple configurations. Simons et al. disclose the limitation of said switch card elements support multiple configurations (recited “records associated with the board’s LID from the corresponding application group tables” as switch card elements support multiple configuration tables; column 18, lines 15 – 26, 34 – 48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cain et al. to include said switch card elements support multiple configuration tables such as that taught by Simons et al. in order to provide network device including a distributed switch fabric subsystem interface coupled with the

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distributed fabric subsystem and capable of transferring network data with the distributed switch fabric subsystem (as suggested by Simons et al., see column2, lines 48 – 52).

Regarding claim 14, Cain et al. disclose the limitation of a method of managing switch connections at a switching node in a communications system (recited “managing a router table including inter-router protocol information indexes the routing table to the inter-router protocol information” as managing switch connections at a switching node; column 2, lines 25 – 27). Cain et al. do not disclose explicitly a system as defined in claimed further comprising generating additional versions of said connection table so as to allow simultaneous changes to multiple connections by routing commands from said connection manager to switch card elements based on one of the additional versions of said connection table. Simons et al. disclose explicitly the limitation of a system as defined in claimed further comprising generating additional versions of said connection table so as to allow simultaneous changes to multiple connections by routing commands from said connection manager to switch card elements based on one of the additional versions of said connection table (recited “reads a line card type and version number out of persistent storage” as generating additional versions of said connection table; Fig. 6, card table, Fig. 7, port table, column 12, lines 30 – 58; recited “allows for multiple versions of the same application to run on the system simultaneously” as allow simultaneous changes to multiple connections by routing commands from said connection manager to switch card elements based on one of the additional versions of

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said connection table; column 14, lines 60 – 67, column 15, lines 1 – 7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cain et al. to include a system as defined in claimed further comprising generating additional versions of said connection table so as to allow simultaneous changes to multiple connections by routing commands from said connection manager to switch card elements based on one of the additional versions of said connection table such as that taught by Simons et al. in order to provide network device including a distributed switch fabric subsystem interface coupled with the distributed fabric subsystem and capable of transferring network data with the distributed switch fabric subsystem (as suggested by Simons et al., see column2, lines 48 – 52).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1, 8, 13, 14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Lee whose telephone number is (571) 272-3131. The examiner can normally be reached on Monday through Friday from 8:30am - 5:00pm.

5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business

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Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACL

July 13, 2006

  
RICKY Q. NGO  
SUPERVISORY PATENT EXAMINER